

REMARKS

The present Amendment is in response to the Examiner's Final Office Action mailed October 17, 2007. Claims 1-3, 8, 9, 11, and 14-19 are amended. Claims 1-19 and 21-31 are pending, claim 20 having been canceled in a previous amendment.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

I. General Considerations

A. Claim Amendments and/or Cancellations

With particular reference to the claim amendments, Applicant notes that while claims 1-3, 8, 9, 11, and 14-19 have been amended herein, such amendments have been made in the interest of expediting the allowance of this case. Notwithstanding, Applicant, may, on further consideration, determine that claims of broader scope than those now presented are supported. Accordingly, Applicant hereby reserves the right to file one or more continuing applications with claims broader in scope than the claims now presented.

Consistent with the points set forth above, Applicant submits that neither the claim amendments set forth herein, nor any other claim amendments, claim cancellations or statements advanced by the Applicant in this or any related case, constitute or should be construed as, an implicit or explicit surrender or disclaimer of claim scope with respect to the cited, or any other, references.

B. Remarks

Applicant respectfully notes that the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the patentable distinctions between any cited references and the invention, example embodiments of which are set forth in the claims of this application. Rather, and in consideration of the fact that various factors make it impractical to enumerate all the patentable distinctions between the invention and the cited art, as well as the fact that the Applicant has broad discretion in terms of the identification and consideration of the base(s) upon which the claims distinguish over the cited references, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the

discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration by the Applicant, in this case or any other, of additional or alternative distinctions between the invention and the cited references; and/or, the merits of additional or alternative arguments.

Applicant notes as well that the remarks, or a lack of remarks, set forth herein are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teachings and purported prior art status of the cited references at any appropriate time.

II. Claim Rejections Under 35 U.S.C. § 103

The Office Action rejected claims 1-19 and 21-31 under 35 U.S.C. § 103(a) as being unpatentable over United States Pre-Grant Pub. No. 2004/0208207 to *Kasper et al.* (“*Kasper*”) in view of United States Pre-Grant Pub. No. 2006/0226930 to *Carvalho et al.* (“*Carvalho*”). Applicants respectfully traverse the rejection at least because the Examiner has not established that the prior art references, whether considered individually or in combination, teach or suggest all the claim limitations.

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” See *MPEP* § 2141.III (citing *KSR*, 550 U.S. at ___, 82 USPQ2d 1385, 1396). Moreover, “rejections on obviousness cannot be sustained by mere conclusory statements.” See *id.*

In the rejection of the claims, the Examiner has conceded that “...Kasper et al. do not disclose that the transmission lines configured such that impedance of the transmission lines gradually changes over the length so that the tapered transmission lines match the impedance of the driver circuit at the first end and match the impedance of the light emitter at the second end.” However, the Examiner asserts that this defect is remedied by *Carvalho*, which purportedly discloses “...use of tapered lines for impedance matching having the impedance of the

transmission lines gradually changes over the length....” See *Office Action*, p. 3. As to the purported disclosure of *Carvalho*, the Examiner has asserted that “...it would have been obvious to...replace the transmission line or impedance matching resistors of Kasper et al with that of tapered transmission lines of Carvalho et al.” and that one of skill “...would have been motivated to provide such impedance matching transmission line in order to provide impedance matching devices with small geometrical devices which further provide improved operational bandwidths and low dispersion.” See *Office Action*, p. 3, 7-11, 13, and 14. For at least the reasons set forth below, Applicant respectfully disagrees.

Applicant respectfully submits that the Examiner has failed to establish that *Carvalho* discloses “a transmission line comprising two lines,” such as are recited in claims 1 and 15. According to the response to arguments section of the Office Action, “[t]he elements on the upper portion of the dielectric substrate (10) are considered as transmission line.” See *Office Action*, p. 15 (citing *Carvalho*, paragraph [0027]). The Examiner appears to imply that ground planes 16 and 18 and dielectric layer 14 each constitute a separate line (if Applicant’s understanding is incorrect, clarification is respectfully requested). Applicant respectfully disagrees.

Notwithstanding the characterization advanced by the Examiner, *Carvalho* unambiguously states: “A transmission line is fabricated on top of a substrate 10.” See *Carvalho*, paragraph [0027] (emphasis added). Elsewhere, *Carvalho* refers to conducting strip 12 as “the transmission line.” See, e.g., *Carvalho*, paragraphs [0030] and [0033] (emphasis added). Thus, the characterization advanced by the Examiner appears to contradict the disclosure of *Carvalho*, inasmuch as the aforementioned passages of *Carvalho* refer to only one line, while the Examiner has alleged that *Carvalho* discloses two lines.

Moreover, although *Carvalho* describes the transmission line as including conducting strip 12, ground planes 16 and 18, and dielectric layer 14, only conducting strip 12 is described as being a “line.” See *paragraph [0027]*. Ground planes 16 and 18 are alternately described as “metallic layers” or “ground planes” (see, e.g., paragraph [0030]), not lines, and dielectric layer 14 is alternately described as a “dielectric layer” or “dielectric film” (see, e.g., paragraphs [0027] and [0030]), not a line. Thus, the Examiner has mischaracterized *Carvalho* in asserting that more than one transmission line is taught. Therefore, even if the references are combined in the

allegedly obvious fashion, the resulting combination fails to include all the limitations of the rejected claims.

The rejection stated by the Examiner is problematic for other reasons as well. For example, claim 3 recites, among other things, “a ground plane.” If the Examiner considers ground planes 16 and 18 of *Carvalho* to each constitute a “line,” as appears to be implied in the Response to Arguments section, it is unclear which, if any, element of *Carvalho* the Examiner believes would correspond to the claimed “ground plane.”

Claims 22, 25, 29, and 30, although of different scope, include similar recitations. For example, claim 22 recites, among other things: “a transmission line comprising first and second lines...” (Emphasis added.) Claim 25 recites, among other things: “a transmission line comprising a first line and a second line...” (Emphasis added.) Each of claims 29 and 30 recites, among other things: “a transmission line that includes first and second lines...” (Emphasis added.)

For at least the foregoing reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 15, 22, 25, 29, and 30, and corresponding dependent claims 2-14, 16-19, 21-24, 26-28, and 31. The rejection of such claims should accordingly be withdrawn.

CONCLUSION

In view of the foregoing, Applicant believes the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 6th day of March, 2008.

Respectfully submitted,

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